To: Erickson, Russell[Erickson.Russell@epa.gov]

Cc: Swain, Ed (MPCA)[edward.swain@state.mn.us]; Monson, Phil

(MPCA)[phil.monson@state.mn.us]

From: Peters, Emily (DNR)

Sent: Mon 11/10/2014 8:07:25 PM

Subject: follow up on MPCA wild rice hydroponic experiment hydroponic individualtests weightchange UMD 20140821.docx

Russ,

It's been awhile since we last talked. I hope all is well. I'm wondering if you have time to review another version of our analyses from the wild rice hydroponic experiment? As you probably know, the PCA organized a scientific peer review of the Wild Rice Study findings in July. Reviewers made a number of useful suggestions related to of our hydroponic dose-response models, including

- Explore different measures of sulfide as the independent variable (initial concentration, time-weighted mean, final concentration)
- Fit a single dose-response model using data from all 3 tests (rangefinder, definitive 1, definitive 2) using relative change in plant mass as the dependent variable.

Attached is our most recent analysis based on these suggestions. Does this look reasonable to you? In particular, is it reasonable to pool data from all three tests using relative change in plant mass as we applied it here? I seem to remember you cautioning us against doing this because seedling age varied across the three tests, but I could easily have misremembered things. Can you comment on this? Going forward, the PCA will primarily use this analysis for emphasizing that sulfide is toxic, not for picking a specific analytical approach or EC value.

I'd be happy to explain this analysis in more detail on the phone. Let me know if that works better. Also, note my phone number has changed. I recently started a new position at the DNR, but fortunately get to keep working on this fun wild rice project!

Thanks a million!

-Emily

Emily B. Peters, Ph.D.

Forest Ecologist

Ecological and Water Resources Division

Minnesota Department of Natural Resources

St. Paul, MN

651.259.5135 | emily.peters@state.mn.us